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Complete Specification Left, 17th Apr., 1889
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A.D. 1888, 28th JULY. N° 10,956.

PROVISIONAL SPECIFICATION.

An Electrical Lighting Apparatus for Medical and Surgical Purposes.

I, CASTLE SMITH, of 54 Fleet Street in the City of London Gentleman do hereby declare the nature of this invention as communicated to me from abroad by R. Blaensdorf Nachfolger, Kaiserstrasse Frankfort on the Maine to be as follows:—

5 This invention relates to an electrical lighting apparatus for medical and surgical purposes by the aid of which operations and observations are more quickly and efficiently conducted than heretofore.

The invention is constructed in the form of a pair of spectacles between the eye pieces of which an incandescent lamp is fitted.

10 The spectacle frame is made of ivory, horn, or other insulating material in which the connecting wires leading from a suitable battery are laid and carried to the bridge on to which is affixed a socket open at the front. This socket is made of some insulated material and carries the incandescent lamp within it. The connecting wires being led thereto from the bridge. In front of the Lamp, a small lens may be fitted if required.

15 On to the eye pieces of the spectacle frame two light oval or other shaped tubes are fitted and made of black papier mache or similar substance for the purpose of protecting the eyes of the user from the electric light. The whole being so arranged as to cause the rays of light and the line of sight to converge towards the same point. Suitable glasses may be fitted in the spectacle frame to assist the vision if required.

20 Dated this 28th day of July 1888.

CASTLE SMITH,
Per F. W. Golby,
"Invention" Office,
54, Fleet Street, London, E.C.,
Agent for the Applicant.

COMPLETE SPECIFICATION.

An Electrical Lighting Apparatus for Medical and Surgical Purposes.

I, CASTLE SMITH, of 54 Fleet Street, in the City of London, Gentleman, do hereby declare the nature of this invention (as communicated to me from abroad by R. Bläensdorf Nachfolger, Kaiserstrasse, Frankfurt on the Maine, in the Empire of Germany), and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

5

This invention relates to an electrical lighting apparatus for Medical and Surgical purposes by the aid of which, operations and observations are more quickly and efficiently conducted than heretofore.

The invention is constructed in the form of a pair of spectacles, between the eye pieces of which an incandescent lamp is fitted. The spectacle frame is made of ivory, 10
horn, or other insulating material, in which the connecting wires leading from a suitable Battery are laid and carried to the bridge, on to which is affixed a socket open at the front. This socket is made of some insulating material, and carries the incandescent lamp within it, the connecting wires being led thereto from the bridge. In front of the lamp a small lens may be fitted if required. 15

On to the eye pieces of the spectacle frame two light oval or other shaped tubes are fitted and made of black papier mache or similar substance for the purpose of protecting the eyes of the user from the electric light. The whole being so arranged as to cause the rays of light and the line of sight to converge towards the same point. Suitable glasses may be fitted in the spectacle frame to assist the vision if required. 20

And in order that this invention may be well understood and carried into practice, I will now proceed to describe the same with reference to the accompanying drawings in which similar letters indicate corresponding parts in both figures.

Figure 1 is an elevation and Figure 2 a plan of the invention.

The apparatus consists of two metallic eye rings F and L connected by an insulating 25
horn bow *g* the whole having the appearance of a pair of metallic dust-goggles. On each of the rings F and L a strip of metal is soldered at *i* and *k* which support the capsule C D, the latter being open in front but the back part formed of some insulating material. The ends *r* and *r*¹ of the metal strips are connected with the conducting wires *h* and *h*¹ of the incandescent lamp B enclosed in the capsule C, D. A convex 30
lens *s* can be fixed in front of the incandescent lamp B. Two light oval tubes of black card-board or similar material *a* and *a*¹ are fastened on to the eye frames F and L. These serve, on the one hand to conceal the capsule C D from the eyes of the investigating Surgeon or other person, and on the other hand act as a screen for the eyes. The conducting wires *c* and *d* coming from the Battery are securely connected 35
with the frames F and L at *i*¹ and *k*¹. The current flows through the wires towards *i*¹ and *k*¹ then over *r* and *r*¹ to the incandescent lamp by *h* and *h*¹.

Smith's Electrical Lighting Apparatus for Medical and Surgical Purposes.

Where a lamp giving a very strong light is employed the spectacles must be manufactured of ivory, or horn with the conducting wires inlaid in order to prevent any conduction of heat to the eyes. *ef, ef* are slots for spectacle glasses.

5 Having now particularly described and ascertained the nature of my said invention, as communicated to me from abroad, and in what manner the same is to be performed, I declare that what I claim is :—

10 An electric lighting apparatus in spectacle form for Surgical and Medical purposes, in which the incandescent lamp B, enclosed in a capsule, is fixed between two tubes *a* and *a*¹ fastened on to the eye frames F and L, substantially as hereinbefore set forth and illustrated in the accompanying drawings.

Dated this 17th day of April 1889.

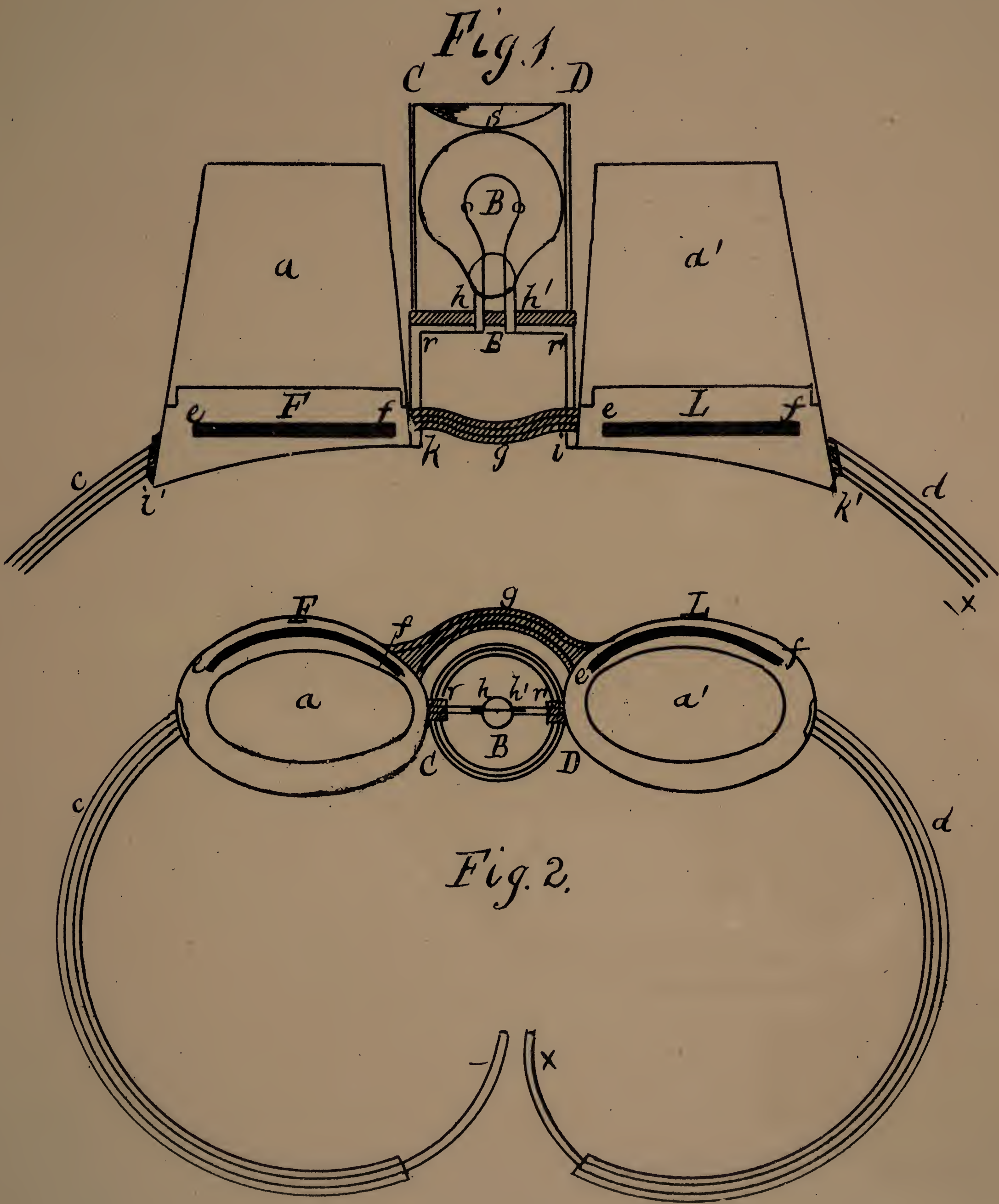
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[This Drawing is a full-size reproduction of the Original.]

